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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,110	06/30/2000	Michael Jacob	9003-269-(A-00-115-B-US)	1922

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ONE COMMERCE SQUARE, SUITE 2200  
2005 MARKET STREET  
PHILADELPHIA, PA 19103

EXAMINER

DOUYON, LORNA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/609,110

Applicant(s)

JACOB ET AL

Examiner

Lorna M. Douyon

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit:

1. This action is responsive to the amendment filed on June 27, 2002.
2. Claims 1-3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer in view of Meyer (US Patent No. 4,734,290) for the reasons set forth in the office action in paper number 6.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Becker et al. (US Patent NO. 5,814,501), hereinafter "Becker".

Becker teaches a process for making dry, dust-free enzyme particles which comprises (a) introducing a particulate, hydratable core material into a fluidized bed spray-coater and maintaining the core particles suspended in the reaction chamber; (b) providing a fermentation broth containing from 5% to about 100% w/w of the total solids therein of a water soluble or dispersible enzyme produced in the fermentation broth and a total solids content of 4-31% w/w of the fermentation broth; (c) spraying the broth onto the core and evaporating the liquid to leave the solids coated on the core, such that the fermentation broth solids added to the core provides a total dry weight gain of 1% to 19% w/w over the initial weight of the core, and optionally the

Art Unit:

additional step of (d) spraying a coating agent over the product of step (c) and evaporating the liquid to leave the coating agent over the solids of (c) such that the solids consisting of fermentation broth solids plus coating agent added to the core provides a total dry weight gain of 1%-24% w/w over the initial weight of the core (see col. 2, line 60 to col. 3, line 20; claim 1).

Becker also teaches that the method is carried out in a fluidized bed spray-coater which, typically, comprises a fluidized bed dryer consisting of a conical product chamber that has a porous grid on the bottom and is open on the top to be put up against a cylindrical or conical shaped expansion chamber of a larger diameter than the product chamber; a filter to collect dust and help air flow which is placed at the far end of the expansion chamber and one or more spray nozzles located within the chamber to apply the solution to the core (underlining supplied; see col. 3, lines 30-39).

The particles are lifted by the upward force of the air out of the product chamber into the expansion chamber where the air expands and the upward force per unit of area is reduced which allows the particles to fall back into the product chamber and start the cycle over (underlining supplied; see col. 3, lines 43-48). Airflow is maintained upwards and out the top of the expansion chamber through a filter which traps fine dried particles which contribute to dust, and fluidized bed spray-coaters that have this filter typically have automatic shakers which shake the filter to prevent excessive restriction of the air flow (see col. 4, lines 42-54), thus returning the dust back to the product chamber. Becker also teaches that the dust-free enzymes can be used as additives to dry detergent formulations (see col. 5, lines 43-46). In one embodiment, the inlet temperature of the fluidized bed is 65°C, and after coating the product is dried for four minutes until the outlet

Art Unit:

temperature reached 48°C, then cooled for 14 more minutes until outlet temperature reached 32°C (see Example 5 under col. 7). Becker teaches the limitations of the instant claims. Hence, Becker anticipates the claims.

***Response to Applicants' Arguments***

5. Applicants' arguments filed June 27, 2002 have been fully considered but they are not persuasive.

With respect to the rejection based upon Bauer in view of Meyer, Applicants argue that Bauer fails to disclose several other steps of the presently claimed invention as discussed at the bottom of page 5 and the top of page 6 of the prior response which are the following. Applicants argue that while Bauer states that the particles smaller than 50 microns in size are removed from the granules via a grading step by countercurrent air stream, there is no suggestion that these smaller particles are returned to the fluidized bed. Applicants also argue that according to the presently claimed invention, the smaller particles are not removed by a countercurrent air stream, but by the process air supplied from below. With respect to the process air for cooling, Applicants argue that the fluidized air of Bauer is cooled by a heat loss and by heat of evaporation of the constituents of the non-surface-active liquid component (col. 7, lines 13-15).

The Examiner respectfully disagrees with the above arguments because of the following reasons. With respect to the argument wherein there is no suggestion in Bauer that the particle smaller than 50 microns are returned to the fluidized bed, Bauer teaches, in col. 7, lines 5-9 that

Art Unit:

only particles beyond a certain size are removed from the fluidized bed while smaller particles are retained therein. Hence, it cannot be said that Bauer does not teach returning dust particles to the fluidized bed. With respect to the argument regarding the smaller particles being removed by the process air supplied from below, and not by countercurrent air stream as in Bauer, please note that there is nowhere required in the present claims wherein smaller particles or dust are removed by process air supplied from below the fluidized bed. With respect to the process air for cooling, even though the fluidizing air is cooled by heat loss and by the heat of evaporation of the constituents of the non-surface-active liquid component, the fact remains that the fluidizing air has been cooled and this reads on “the process air for cooling has a temperature lying in the range of about -20 to +30°C” as required in step (c) of the present claim 1. Additionally, Bauer teaches grading air (sizing air) having a temperature of 20°C which also reads of the “process air for cooling” (see col. 7, lines 5-9; Table 1).

Applicants also argue that there is no basis in either Bauer or Meyer to support the Examiner’s assumption that the fluidized bed of Bauer would have an expansion zone above the fluidized bed chamber as described in Myer. Applicants also argue that Meyer does not make up for the deficiencies of Bauer because the production of salt substitutes as described in Meyer is not at all comparable with a process of manufacturing industrial detergents or detergent components and accordingly, Bauer and Meyer are not properly combinable.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the

Art Unit:

teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is generally known to one of ordinary skill in the art that a fluidized bed comprises an expansion zone whereby the linear velocity of a flow of a gaseous medium progressively decreases with increasing elevation in the upwardly and outwardly tapering expansion zone, and an example of which is shown by Meyer.

6. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (703) 305-3773. The examiner can normally be reached on Mondays-Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for this Technology Center is:

**(703) 872-9311** - for Official After Final faxes

**(703) 872-9310** - for all other Official faxes.

Art Unit:

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-0661.

October 3, 2002



Lorna M. Douyon  
Primary Examiner  
Art Unit 1751